

REMARKS

Claims 1-9 and 16-18 are currently pending in the present application. Claims 7 and 8 have been amended. No new matter has been added. Reexamination and reconsideration of the application are respectfully requested.

REJECTION OF CLAIMS 7-8 UNDER 35 U.S.C. 112

Claims 7-8 are rejected under 35 U.S.C. 112 for the reasons set forth on pages 2-3 of the Action. Specifically, the term "laser office machine" is objected to. In response, claim 8 has been amended to clarify that the office machine is a laser printer. Also, claim 7 has been amended to recite that the office machine can be an "all-in-one office machine that includes a laser printer." An example of all-in-one machine is a machine that can operate as a scanner, as a fax, and as a printer and that includes a laser printer for printing. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. Section 112 be withdrawn.

REJECTION OF CLAIM 1 UNDER 35 U.S.C. 103(a)

Claim 1 is rejected under 35 U.S.C. 103(a) for the reasons set forth on pages 3-4 of the Action. Specifically, claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young No (U.S. Pat. No. 6,587,140), hereinafter referred to as Young or Young reference.

The rejection under 35 U.S.C. 103(a) are respectfully traversed, at least insofar as applied to the amended claims, and reconsideration and reexamination of the application are respectfully requested for the reasons set forth herein below.

The Action cites FIG. 1, FIG. 2, col. 2, lines 1-37, and col. 4, lines 39-62, of the Young reference for teaching the elements of the printing system as claimed. However, it is respectfully submitted that the Young reference fails to teach or suggest, inter alia, the following claim limitations: "wherein a defective printer controller may be replaced by an operational printer controller or an out-dated printer controller may be upgraded with a new printer controller by removing the PC card with the defective or old printer controller from the laser office machine and by inserting a new PC card with the operational or new printer controller into the laser office machine," as claimed in claim 1.

One aspect of the invention is to provide a printing system that includes a removable PC card with a printer controller. This printing system allows a user to easily access, replace, or upgrade the printer controller. Claim 1 was previously amended to clarify and recite this aspect. Unfortunately, a user could not access the printer controller in prior art printing system configurations (e.g., see Background section of application). This claimed aspect is neither taught nor suggested by the Young reference.

It is respectfully noted that the Young reference lacks any suggestion, whether express or implied, that the Young system (i.e., camera, printer, and card) be modified in the manner required to meet claim 1. In this regard, the Action appears to have made a strained interpretation of Young that could only be made with improper hindsight. For example, the Action states on the top of page 4 that "it is well known in the art that a defective or out-dated PC card can be replaced with a newer or more updated PC card by a user manually since a PC card as taught by Young is detachable and removable. ..

A user reduces the cost and time of having to ship the whole printer to the manufacturer." This is the same language that is used in the specification in the Background section, thereby supporting an assertion that the prima facie case for obviousness has been made by hindsight and with improper reference to the current application.

Moreover, the problem solved by the invention does not appear to have been recognized by the Young reference. Young is directed to reducing manufacturing costs by sharing a single microprocessor between a camera and a printer (see col. 2, lines 9-16), but fails to address the inefficiencies and disadvantages of prior art methods for the replacement or upgrade of a printer controller. Perhaps, the Action can point out in the next Action a portion of the cited references or another reference that sets forth the problem addressed by the invention. In this regard, the recognition by the specification of a previously unrecognized problem argues in favor of patentability and non-obviousness.

Assuming arguendo that the invention as claimed were in fact obvious, which is not conceded, those skilled in the art would have implemented it by now since laser printers have existed for many years and the advantages of the invention are significant. In this regard, the fact that those skilled in the art have not implemented the invention, as claimed, despite its advantages, suggests or indicates that the invention is not obvious.

For the reasons advanced above, it is respectfully submitted that the Action has not presented a convincing line of reasoning as to why the claimed subject matter as a whole, including its differences over the prior art, would have been obvious.

Also, the Action cites intelligent circuit 90 of Young as teaching or disclosing the printer controller as claimed. However, it is respectfully submitted that Young's intelligence circuit 90 does not fairly teach or suggest the printer controller as claimed for at least the following reasons. The intelligence circuit 90 of Young is described as performing the following functions: 1) converting data generated by the imaging sensor into stored data (Abstract, lines 4-6), and 2) converting data stream received from imaging unit 33 into printer instructions (col. 4, lines 40-42).

In contrast, the printer controller, which is known by those of ordinary skill in the art, and described in the Background section, performs functions (e.g., process encoded data formats called page description languages) required by the laser print engine that are missing from and not performed by circuit 90 of Young. It is respectfully submitted that intelligence circuit 90 of Young is very different in construction, operation and function than the printer controller as claimed. In this regard, the claim language has been previously amended to recite printer controller instead of "formatter" to clarify that the printer controller is the same component that in the prior art is housed in the printer enclosure and is needed by the print engine to render images.

In view of the foregoing, it is respectfully submitted that the Young reference, whether alone or in combination, fails to teach or suggest the printing system as claimed. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. Section 103(a) be withdrawn.

REJECTION OF CLAIMS 2-9 & 16-18 UNDER 35 U.S.C. 103(a)

Claims 2-9 & 16-18 are rejected under 35 U.S.C. 103(a) for the reasons set forth on pages 4-7 of the Action. Specifically, claims 2-9 & 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young No (U.S. Pat. No. 6,587,140, hereinafter referred to as "Young" or "the Young reference") in view of Benjamin et al. (U.S. Pat. No. 6,113,208, hereinafter referred to as "Benjamin" or "the Benjamin reference").

The rejections under 35 U.S.C. 103(a) are respectfully traversed, at least insofar as applied to the amended claims, and reconsideration and reexamination of the application are respectfully requested for the reasons set forth herein below.

Specifically, the Young reference, whether alone or in combination, fails to teach or suggest inter alia the following claim limitations: "wherein the office machine requires the PC card with printer controller to be coupled thereto to render images; and wherein the printer controller may be replaced or upgraded by a user without intervention of the manufacturer of the office machine," as claimed in claim 1. It is respectfully submitted that the combination of Young and Benjamin fails to teach or suggest the invention as claimed for the same reasons as advanced previously. Benjamin does not cure the deficiencies of the Young reference.

Regarding claim 2, the Action cites col. 3, lines 50-67 and col. 4, lines 1-40 of Benjamin for teaching the "printing software having an automatic update module that when executing on the host device automatically downloads to the host device from a source one of an updated version of printer controller firmware and the printing software," as claimed. However, it is respectfully submitted that each reference (i.e.,

the Young reference and the Benjamin reference) is complete and functional in itself, so there would be no reason to use parts from or to add or substitute parts to any reference.

Moreover, Young's capture and print system is not a "host computer" and thus, does not have networking abilities or an Internet connection, which would be required to implement the solution suggested by the Action. In this regard, even if one were to combine Benjamin with Young, as proposed by the Action, the combined elements would form an inoperative combination.

Also, regarding Benjamin, the passages, cited by the Action, mention displaying a message that alerts a user about a new printer driver (lines 3 and 4) and automatically connecting to a manufacturer's website (lines 8 and 9), but does not fairly teach "printing software having an automatic update module that when executing on the host device automatically downloads to the host device from a source one of an updated version of printer controller firmware and the printing software." as claimed.

Furthermore, it is noted that a printer driver, mentioned in Benjamin, does not fairly teach or suggest printer controller firmware because Benjamin is directed to an inkjet printer (see col. 2, line 54 and FIG. 2, element 1), whose construction is different from a laser printer and does not have a printer controller as claimed.

In view of the foregoing, it is respectfully submitted that the Young reference, whether alone or in combination with the Benjamin reference, fails to teach or suggest the invention as claimed. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. Section 103(a) be withdrawn.

Moreover, it is respectfully submitted that the references are improperly combined. It appears that the Action uses improper hindsight to select components or elements from the different references to arrive at the claimed invention.

Assuming arguendo that the different components of the different references may be combined in the manner outlined in the Action, the Federal Circuit has stated, "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." *In re Fritch*, 972 F.2d 1260, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992) [emphasis added].


Consequently, it appears that the current patent application has been improperly used as a basis for the motivation to combine or modify the components selected from the cited references (e.g., Young & Benjamin) to arrive at the claimed invention. Stated differently, the proposed combination of the cited references appear to be based on hindsight since the cited references do not teach or suggest a motivation to combine the respective elements of each reference in the manner proposed by the Action.

The Federal Circuit has held, "The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a prima facie case of obviousness. There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself." *In re Oetiker*, 977 F.2d 1443, 24 USPQ 2d 1443, 1446 (Fed. Cir. 1992)

Accordingly, it is respectfully requested that the rejections of the claims under 35 U.S.C. 103(a) be withdrawn.

For all the reasons advanced above, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the pending claims are requested, and allowance is earnestly solicited at an early date. The Examiner is invited to telephone the undersigned if the Examiner has any suggestions, thoughts or comments, which might expedite the prosecution of this case.

Respectfully submitted,




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I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office (fax no.: 571-273-8300) on the date below.


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(Date)